

30. The method of claim 29, characterized in that said first compound is 3-nitrobenzenesulfonic acid (sodium salt) (NBSA) and said second compound is polyethyleneimine (PEI).

31. The method according to claim 30, characterized in that said PEI is present in the form of large, branched molecules.

32. The method of claim 29, characterized in that said first compound or said second compound is large as compared to defects present in said self-assembled monolayer.

33. The method of claim 29, characterized in that the characteristics of said first and said second compound are combined in one single molecule.

34. The method of claim 29, characterized in that a copper surface is first patterned with a self-assembled monolayer and etched over a limited depth, and subsequently said etched copper is removed from the etch bath and printed a second time with a planar stamp and then placed back in said etch bath.

35. The method of claim 34, characterized in that after the first etch step, the parts of said etched copper surface which are protected by said self-assembled monolayers are covered with a different material to further block the etch of these parts of the copper surface during the second etch step.

A B S T R A C T

A wet etching system for selectively patterning substrates having regions covered with self-assembled monolayers (SAMs) is disclosed, thereby controlling the etch profile, said system comprising a) a liquid etching solution; and b) at least one

additive to said liquid etching solution having a higher affinity to the regions of said substrate covered with SAMs than to the other regions of said substrate. Also provided is a method for selectively patterning substrates having regions covered with self-assembled monolayers (SAMs), thereby controlling the etch profile, said method comprising the steps of a) providing a liquid etching solution; b) adding at least one additive to said etching solution having a higher affinity to the regions of said substrate covered with SAMs than to the other regions of said substrate; and c) etching said substrate with said liquid etching solution comprising said at least one additive.